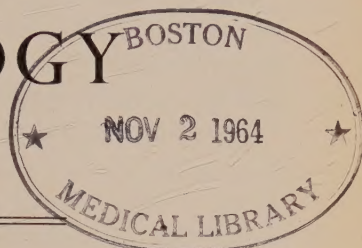


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THE INFLUENCE OF ATTITUDES IN THE REHABILITATION OF INDUSTRIAL CASES.

J. K. MORGAN AND J. H. TWISTON DAVIES.

THE satisfactory disposal of persons suffering from skin disorders which have been labelled occupational or industrial dermatitis is often held to depend in large measure on their obtaining different employment or upon alteration being made in the methods, materials, or exposures of the work they had been performing. However, Bentley Phillips (1954) has recorded that in every one of 139 cases of occupational dermatitis seen by him on behalf of the Ministry of National Insurance and followed up after 1-4 years, compensation was *still* being paid. Not one had recovered fully or had been able to resume his original occupation without further trouble. The vast majority of the women had never worked again, but continued to draw compensation. Conditions in the north west of England are different in that "dermatitis" is well known to be "incurable" and a final disablement gratuity is usually awarded soon after the end of the injury benefit period; experience of cases seen at the Medical Appeal Tribunal provides little encouragement to suppose that rehabilitation in the sense of a full return to predisablement work often takes place. Although Mellier (1948) plainly indicated the importance of a simultaneous psychological rehabilitation of the workman whose skin trouble has been attributed to his employment, attention is not always paid to this side of the problem. It is still quite usual to find among the documents of workmen who, as it turns out, have never worked again reports predicting at various stages that "in a few weeks or months the skin will be fit for light clean work in a cool dry place away from known irritants" or that the reduction of "resistance of the skin resulting from the attack of the prescribed disease" is to be measured in months.

That so many different observers invariably use the same form of words suggests that opinion may have hardened into attitude. To some extent of

course this must follow from the attitude of the Ministry, which requires the specialist to frame his report on the questions now printed on the form (B.I.161).

The attitude of the workman is often confirmed by that of a good many members of the Statutory Boards and even of Appeal Tribunals who, in defiance of Sect. 12 (2)C of the Act, persist in asking the claimant to state just how the disability affects him at *work*.

But of course, most of these people when referred under the auspices of these bodies are not seeking advice or help ; more often than not the dermatologist is being offered a small sum to predict how long the skin is going to remain less resistant to dust, liquids or vapour, or to supply arguments in favour of an attributability of which he may in many cases be a little doubtful. And many patients who have reached the stage of disablement benefit are quite unsuitable for rehabilitation, for they have often become unco-operative, bigoted and pessimistic to a degree which quenches our enthusiasm.

The present study of the problem has developed out of two sources : An enthusiasm for tracking down contact factors in every patient with eczema having possible exogenic associations ; and a belief on the part of J. H. T. D. based on his experience as Medical Referee and member of the Medical Appeal Tribunal that the only hope of preventing invalidism arising out of skin disease complicated by legal and administrative associations must lie in the careful and sympathetic clinical examination of the patient at the earliest possible moment and in the workman's confidence in the sincerity and unreservedness of the opinions and advice offered to all concerned. Hellier has already called attention to the value of early investigation, treatment and explanation in making the patient feel that everybody is doing his best for him. Our own attitude is based on the fact that having to deal perfunctorily with cases of alleged occupational dermatitis can be the most dreary and thankless task in dermatology ; on the other hand a thorough investigation of each case can make the task both fascinating and rewarding.

For the purpose of this paper we have taken a consecutive series of cases seen together by us during 1953 and the first half of 1954. It must be emphasized that we are not dealing here with a series of workmen referred by the Ministry of National Insurance or by Trade Unions for a report, but with patients referred by the industrial medical officer or family doctor or genuinely seeking advice on their own. We have not wasted our time on patients with obvious constitutional disease and without reasonably conceivable skin hazard ; but we may well have persuaded a few, in whom the history or clinical appearance of the eruption afforded some promise of positive patch test findings, to seek our help in this direction, when it otherwise might not have occurred to them to do so. To this extent there has been selection, but in every case

The patient himself was firmly convinced that his skin trouble was occupational origin and without our help would never have entertained any doubts about it.

Our investigation consisted of clinical interviews, and in addition to patch-testing studies we took a detailed history having special reference to (i) the exact nature of the job and its possible exposures, (ii) a previous history of skin disease, (iii) physical or emotional trauma during the fortnight preceding the appearance of the rash, and (iv) the patient's emotional attitude towards his disease.

Twenty-nine patients were studied and in 19 there was evidence of an occupational factor in their dermatosis. None the less we did not always (or indeed often) think it necessary, at the time of their first visit, to insist upon a complete change of occupation and we did our best in every case to encourage the patient to return to work, at least of some kind, as soon as the skin condition had improved.

Because we were interested in the prognosis and particularly wished to learn whether the advice we had first given them had been helpful or otherwise, we have this year sent for those patients seen in 1953 and the first half of 1954 to return for review. Our follow-up, which had not been planned before investigating the patients in the first place, took the form of an interview during which we obtained answers to the questions in Table I.

TABLE I.

1)	Name. O.P. Number. Age and sex.		
2)	Single (S), Married (M), Separated (SD) and for how long? Any change of status since "accident".		
3a)	Age of spouse, whether well (W) or invalid (I), employed (E) or not (U).		
3)	Own house with normal family group? How many children and whether at home or away (married, in forces, etc.).		
3a)	Entertaining lodger, invalid relative, etc.		
3b)	(Single persons) living with parents, in lodgings, hotel, hostel, with friends, etc.		
4)	Educational history—occupational history. Particulars of military service. Length of time in relevant job. Satisfied with its nature, condition and prospects?		
4a)	Hobbies. Reading, recreation, amusements, overtime.		
5)	Designation of job: and whether skilled (S), semi-skilled (SS), Labourer (L), Clerical (C), Professional (P).		
5a)	Description of job.		
6)	Present employment. (I) Pre-accident job in full. (II) Pre-accident job avoiding alleged irritants. (III) Equally remunerative job. (IV) Less attractive job. (V) Has not worked at all since skin trouble. How long off work?		
7a)	(i) Present condition:		
	Psyche.	Skin.	
	Living normal life A	Clear 1	
	Exercising reasonable care B	Slight 2	
	Suspected irritant still feared C	Better 3	
	"Cannot put hands into water" D	The same 4	
	Cannot go out E	Worse 5	
	(ii) How long before rash disappeared?		
	(iii) Is rash of the same kind or different now?		
7)	Who sent the patient?		
8a)	Did employer or industrial medical officer co-operate?		

- (8) Did patient correctly suspect the responsible contact ? or some contact other than the right one ? or contacts later shown to have been harmless ? "Dust, liquids or vapour" in general ? Contagion ?
- (8a) Was history consistent with allergy or primary irritation ? Had there been an accident ? Any previous skin trouble ? Any other physical disability ?
- (9) Patch test results.
- (9a) How are these interpreted in terms of sensitization-allergy, primary irritation, reactions incidental to eczema, no evidence of occupational causation, results inconclusive or unhelpful.
- (10) Have subsequent events supported or negated the diagnosis of occupational dermatitis ?
- (10a) What are the patient's beliefs ?
- (i) that contrary to evidence he has "contracted" special and incurable disease resulting solely from conditions of work.
 - (ii) uncertain but believes that "dust", "liquids" and "vapour" are bad for his skin.
 - (iii) understands that he now has a constitutional disease but believes that an "attack of the prescribed disease" provoked it.
 - (iv) understands the nature of his condition as well as we can put it to him, whether held to be occupational or not.
- (10b) Injury Benefit (IB), Disablement Benefit (DB), Common Law action (CL), etc.
- (11) (a) Characters of rash when first seen or at onset :
- Simple self-limiting contact dermatitis
Equivocal rash with acceptable distribution
Equivocal rash
Rash of constitutional type
- (b) Mental attitude :
- Friendly
Pretendedly or grudgingly co-operative
Uninterested or apathetic
Delusional or hostile and unco-operative

Normal (N), Tense (T), Anxious (A), Obsessional (O), "Belle indifference" (B), Psychotic (Ps).

(12) Summary.

We classified our patients according to whether we considered their eruptions were originally due to specific sensitivities, or otherwise, and then subdivided each category into those in whom the occupation could be held causal, and those where it could not. Their subsequent fate was also classified : I, Doing pre-accident work in full ; II, Doing pre-accident work avoiding alleged irritants ; III, Doing equally remunerative work of a different sort ; IV, Doing less attractive work ; V, Not working at all since skin trouble.

Of the 29 cases in the series 26 presented themselves for the follow-up interview and the results are given in Table II. The 3 who did not respond were traced by the Almoner, but they refused to co-operate. It was determined however that although all 3 were working it was at different and less remunerative jobs, and we would therefore place them in group IV in the table.

TABLE II.

		Group.					
		I.	II.	III.	IV.	V.	Total.
Epidermal sensitivity	17 {	Associated with work . . .	5	5	—	3	14
		Not associated with work . . .	2	—	1	—	3
No epidermal sensitivity	9 {	Primary irritation at work . . .	1	2	—	—	3
		No occupational cause . . .	2	—	2	—	6

That 28 out of a total of 29 are at work and that no less than 10 of them contentedly pursuing the occupations which they believed—and in 6 cases correctly believed—to have been the cause of their compensatable disease seems to justify this paper. The fact that only one has remained unemployed is not remarkable in these days of full employment, but it may be worth mentioning that not one of the rest received industrial injury benefit longer than three months.

The high proportion of cases with epidermal sensitivity is, of course, contrary to the general experience of industrial dermatitis and likely to be due to the influences of selection mentioned earlier. All positive patch tests were significant as far as we could tell in that controls were negative. Nevertheless we do not always believe that the specific sensitivity was necessarily a prime factor in producing the dermatitis. For example, we had jig dyers, leather workers and others who gave positive patch tests to chrome in which it seemed to us that the sensitivity must be incidental rather than causative despite the obvious relationship to the work; but we have included them in the specific sensitivity group albeit arbitrarily.

Of the 10 patients still at their original occupations, 5 had demonstrated an apparent sensitivity to one of their contacts at work; but they continued to do their work, and of them only two had any continuing dermatitis and that not troublesome. Only one of the other three felt it necessary to take any special care of his skin. Two others in this group of 10 had been sensitive to contacts connected with their work (as it transpired) and they continued free of any trouble. One man with a primary irritant reaction continued at his old work with only minor skin changes, which he did not allow to bother him. Two patients with eruptions which we ultimately decided were constitutional also remained at their old jobs.

Seven patients were at their original work but with the responsible contact excluded (two of them had primary irritant reactions and five specific sensitivities). They were fortunate in that this provision could be made for them at their work, because although this is an obvious measure in rehabilitation it is one in which we find employers, and even more the Trades Unions, cannot easily be induced to co-operate. The help of an industrial medical officer may be essential. Two patients in this group nevertheless continued to have skin trouble.

Of the five in less remunerative employment, three had shown sensitivities to the responsible contacts could not be excluded from the processes in which they were originally engaged; the other two had unequivocal constitutional eczema. The three patients who did not attend for follow-up also fall into this category and of the total of eight we believed that at least four need to have changed their work (which they had done without our encourage-

ment). The five that we saw on follow-up were more or less introspectively concerned with the state of their skin and had much more trouble with it than many who remained at their original work.

Of the 26 patients we followed up only 14 were absolutely free from skin trouble, and 11 of these were patients who had given positive patch tests (8 of them occupational). To remain well these people had, as might be expected, to avoid the responsible contact, and only 3 out of the 8 with occupational reactions were free of trouble and doing their pre-accident work in full. Eleven out of the remaining 12 kept at work and did not permit their mild skin disabilities to rule their lives. Indeed, it was not so much a question of being completely free of all skin trouble, but of keeping at work and making the maximum use of their residual capacity.

As an illustration of our findings we append here selected case histories from one patient in each group of our classification.

CASE REPORTS.

(1) *Epidermal Sensitivity, Associated with Employment.*

CASE 1.—A laboratory technician, narcissistic and self-important, he has managed to "avoid trouble" (matrimony), lives with his parents, consults trichologists and is interested in photography. Tense and glib, he pretended co-operation and tried to deny that he had drawn industrial benefit. He correctly supposed that he was allergic to formalin, but admitted that the eczema of his hands had persisted when on holiday. He continues now, however, to work in a histological laboratory with only intermittent skin trouble.

He has an eczema associated with a sensitization about which he has a fairly well developed psychoneurotic interest, but he continues to follow a calling in which he is no doubt sincerely interested, and this vocational impulse is presumably sufficient to compensate for the introspection he tends to develop over what is fortunately the mild rash he develops on his hands from the specific occupational contact.

CASE 2.—At the time of her original visit with an eczema of the hands, this girl was working in a hairdresser's shop. As a result of patch-testing with all the materials she encountered we decided that she had a specific sensitivity to one brand of oil shampoo. However, she has a normal mental attitude and has not allowed this isolated idiosyncrasy to interfere with her career.

She has now progressed to become a full-time student at the technical college and she continues to develop her chosen craft without skin trouble and merely avoids the responsible agent. There has never been at any time a delusional attitude towards her skin rash and her sense of vocation has allowed her occupational dermatitis to end in a proper manner.

CASE 3.—This is a man of 39 years, possessed of a greater intelligence than his work demands, but whose apparent lack of ambition is presumably compensated for by his outside interests which include the serious breeding of spaniels. He works as a labourer in a large chemical works, and has done so for many years. He developed a simple contact eczema from handling tartar emetic, to which he gave a positive patch test. He had twice previously had similar eruptions—in 1946 ascribed to D.D.T. and in 1947 to metachrome. He is still sensitive to chrome.

Despite all this he continues at work, avoiding the materials responsible for his allergies, and remains well. He accepts that sensitizations of this kind may be more likely to occur in chemical factories. His occupational dermatitis has been a fact, not a delusion, and he does not even seem to have the view that bad conditions of work are responsible; he regards the risk as an acceptable hazard of his trade. He appreciates that he handles things which can cause rashes, but is not terrified of all chemicals, or of going within half a mile of the factory. Indeed, surely the significant fact is that he has three times had contact reactions associated with his work (two of them fairly certainly sensitizations) and yet he has remained there and has only avoided the responsible substances. In these circumstances many, perhaps even most, other men would have fled in panic from all chemical factories. Presumably he has a "sensitive skin" and it may be that his "stick-in-the-mud" mental attitude gives him greater help to him in his condition than a more progressive outlook. Certainly he reveals no impulse to use his skin reaction as a justification for leaving this job for another, or for doing no work at all.

CASE 4.—This man is sensitive to chrome and had been a dyer for 30 years in contact with this substance. He seems to have had intermittent skin trouble for many years and has had compensation for it on more than one occasion. His sensitivity seems to have been relatively specific.

He has now left his trade, and is earning £5 a week less as a caretaker. He says that he feels better than he has felt for years, that his skin now remains clear and that this is adequate compensation for his loss of earnings.

By any standard his industrial dermatitis is a fact and not a delusion, and this is only the classical text-book picture (but not so common, in our experience, in

Whatever his mental attitude during the course of his disease he has now got back to normal and does not bother about his skin, or have to take particular care of it.

CASE 5.—This man has chronic psoriasis. He worked as a metal turner, and in 1933 developed an eczematous eruption on the hands. He was patch-tested to dirty Mystic from his factory and gave a positive reaction; clean Mystic and various metal salts tested at the same time were negative. His rash cleared up, he returned to work (this time not handling oil) and promptly relapsed; eventually he cleared up once more, but two days after his second return to work (when he handled Mystic again) he relapsed a second time and since then has been out of work for many months.

This man had an eczema presumably due to a sensitivity to something in the dirty Mystic. He is however completely deluded and now regards his pre-existing concomitant psoriasis as also due to his work, has relapsed on return to work whether handling dirty Mystic or not, and has ultimately stayed off work altogether. He is aggressive and resentful, and his mental attitude with his inability to see that his psoriasis at least has nothing to do with his work, is of much greater significance, in our opinion, than the rather peculiar sensitivity to dirty Mystic which he once demonstrated. It might be said that we did him the greatest disservice by giving him a positive patch-test reaction on his skin to see, or that a firm line taken at the start might have saved him. But after much experience of the attitude characteristic of these cases we doubt whether it made much difference.

(2) *Epidermal Sensitivity, not Associated with Employment.*

CASE 6.—This man of 43 was an omnibus maintenance mechanic, a very steady and skilled workman, who had the burden of a seriously disabled wife.

An accident three years ago when he jammed a 'bus under a low bridge obviously still pricks his conscience although he has been exonerated from all reasonable blame and was not penalized.

He is sensitive to chrome and developed a reaction to the khaki shirts he habitually wore to work. This reaction first started after the accident mentioned earlier. In accordance with accepted lay doctrine, even he thought that what he had must be an industrial dermatitis due to oil encountered in his work. Our demonstration of the actual nature of his sensitivity and the fact that he has had no further trouble since we told him to stop wearing khaki shirts has convinced him that we were right. He is a sound man and harbours no lingering delusions; continues at his old job and no longer bothers about his skin. But it is easy to see that without careful scrutiny he might easily have passed as a case of industrial dermatitis, or if he had himself a more delusional attitude of mind, he might well have clung rigidly to the idea that the oil at work had damaged his skin, and either way have been ruined for life.

(3) *No Epidermal Sensitivity. Primary Irritation from Employment.*

CASE 7.—This man, one year after changing his work from driving to baking, developed a nondescript eczema of hands and arms. This was not due to any sensitivity to the materials he handled, but we thought it might be a primary irritant reaction to the constant wetness (using electric drier inadequately) and the friction from kneading dough. He himself is not in any doubt that he has occupational dermatitis, but being encouraged to stick at his trade, he has managed to continue at it for over a year with minimal trouble though his skin is not perfectly clear. He seems to us to be better off continuing in that way, instead of changing his employment again. We have not disabused him of the idea of occupational causation—there is sufficient evidence of it for us to be unable to do so—but at least we have not encouraged him to develop the attitude that he has suffered in the cause and can retire hurt.

CASE 8.—This was a man aged 34, apparently stable but with few engrossing outside interests, who was a skilled maintenance welder in a chemical producing plant where he had worked for several years. He came to us with a rash mainly on the face, which at first sight we would have regarded as a seborrhoeic eczema, but he gave a history that it had started after he had been engaged on repairing a vat used at an intermediate stage in the production of streptomycin. It struck an ominous note when he described his condition as the "Shed 4 dermatitis" presumably signifying that this shed had rightly or wrongly acquired a reputation for danger. His condition cleared, but relapsed on return to work when he had no contact with this streptomycin intermediary. It transpired that this material was a strong primary irritant under patch-testing conditions and by testing him with it and giving him a positive reaction to look at, we confirmed his already quite firmly held views that it was dangerous. He never had more than transient contact with it; people actually working on the process had a much greater degree of exposure but perhaps took more precautions. All this has meant that he has been taken off contact with this particular plant. He remains at work, with this express substance avoided; mercifully his skin remains clear and he does not seem to be worrying about the fumes blowing across the works from Shed 4 a quarter of a mile away.

We may have helped him to stay at work but have not dispelled his fears in the slightest degree, even though we are not fully convinced that this primary irritant can really have been the only cause of his trouble.

(4) *No Epidermal Sensitivity. No Occupational Cause.*

CASE 9.—A reasonable man, with steady home conditions and a liking for hard work; 14 years in his present trade.

His rash appears to have been largely of constitutional type and has disappeared though he continues at the same work. He is a textile process worker who works a machine hammering cotton to make it look like linen (beetling) and so has contact with cloth treated with various dyes. He does not react to any of the dyes, but does react to chromate (presumably the mordant in many of the dyes). This sensitivity to chrome may be contributory because it is encountered in his work, but the degree of contact was dubious, and we did not regard it as significant.

By demonstrating a positive patch test, we may have helped to fix his delusion, though we have altered its basis (i.e. chrome is the cause in his mind, instead of the dyes he originally suspected). In this case, although we have not been able to dispel any illusion, we have over-compensated for any harm that we might have caused by insisting on his keeping at his job. The only disadvantage is that he has had a lot of unnecessary trouble in washing supposedly chrome-contaminated dust off his perfectly normal skin.

CASE 10.—This was a Welshman of 39, a baker all his working life who developed short-lived patchy eczema of the hands and arms. There was no evidence of occupational causation, and he cleared up quickly and went back to work, remaining well. There may possibly have been some degree of primary irritation from dough, towels, etc., but this has been adequately overcome in many other patients. After several weeks at baking he developed a little itching of his hands, but no rash. On the basis of this, of his own volition and against our advice, he left his work (which he had done for 24 years) because "he knew he was only going to have persistent trouble and could not afford to be off for a month again" (he had never had any previous skin trouble). He has taken up an inferior job in a mail-order warehouse.

He is now quite hurt and resentful that he cannot claim disablement benefit in respect, taking as proof of his perspicacity the fact that he has had no further trouble with his skin since he changed his work. We have been quite unable to change or prevent what we regard as a complete delusion about the nature of his trouble, and the only consolation is that he is working at all.

It will no doubt be appreciated that in spite of a certain emphasis on patch-testing, we have come to regard the reactions of the skin in this condition as of no greater importance than the associated attitude of mind. The patch test is unreliable as the only basis for assessment of a case, and obviously does not always reflect the actual conditions of exposure. It may be that those patients who remained at work in contact with the allergens presumed responsible will not be accepted as cases of true sensitivity for that very reason, but it was difficult to see how else to classify them.

One of the more significant results of patch-testing in our experience was that negative results with a suspected material were not always a big factor in convincing a patient that his suspicions were unfounded. Indeed patch-testing sometimes had the very opposite effect, in that a primary irritant reaction to some substance encountered at work and tested for the sake of

completeness, but which had no real aetiological significance (and which under patch-test conditions irritated normal skin), provided a focus for confirmation of a patient's views which were then enthusiastically maintained regardless of any interpretation that we might make of it or of the clinical evidence.

This leads us to the point where we would like to suggest that in some people an "attitude" amounts to much the same thing as a delusional state, in that it cannot easily be changed by argument or demonstration. Part of our own attitude is that we do not believe that the skin plays the only significant part in many cases of industrial dermatitis.

There are, of course, innumerable substances which will irritate the skin, many of them in common use. Cement is a familiar example. Everyone who handles cement becomes aware of a feeling of roughness and dryness of the skin of the hands; this is not modified to any extent by becoming accustomed to it. The mere sensation can, however, be converted into a regular symptom by means of emotion, particularly the emotions of fear or resentment; and that of fear is readily aroused in industrial patients by fellow workers with stories derived from what we sometimes venture to call the "Great Dermatitis Myth".

We return therefore to the impression we have that the mental attitude and make-up of the patient is an important factor in his rehabilitation. At any rate it is an aspect of rehabilitation which it is essential to consider over and above physical methods of protection and avoidance, with which in this study we have not greatly concerned ourselves. In our series the patients who remained at their old work tended to be those who were not morbidly interested in their skins and were without any ulterior motive for leaving their jobs. Where contributory external factors were present, they looked upon them with nonchalance or indifference, or held them to be acceptable hazards in their trade, and a few exhibited a stubborn but refreshing lack of comprehension on the possibilities of their having an industrial dermatitis. Others were kept going by a vocational impulse, which would not permit the intrusion of the idea that they must stop doing their chosen work. These attitudes do not imply any lack of intellectual qualities but rather the reverse and they certainly help to prevent the development of delusions of martyrdom. If one can encourage patients in these attitudes of mind, of indifference or of vocation, it seems a useful measure in rehabilitation. They will not then worry so much about the fumes blowing across the works from Shed 4 a quarter of a mile away, or be so obsessively anxious to cleanse their skins of every particle of what may be perfectly harmless dirt.

Our attitude has not been to give them what is sometimes called the "benefit of the doubt". Indeed, unless we have been impressed by a really convincing

libitation of specific sensitivity we have encouraged them to go back to work as early as possible. There were, among those who have become the martyrs their skin in less remunerative and pleasant jobs, as high a proportion in small series who turned out ultimately to have had a constitutional eczema no way related to their original work, as those who had undoubted contact dermatitis. Even among those who had an apparent sensitization (as far as patch-testing can be relied upon to demonstrate it) there are several back at their original work and not morally or materially affected as a result of it. It will doubtless have been noted that it did not necessarily follow that a patient with a non-occupational rash had any better prospect of rehabilitation than one with a true occupational dermatitis.

Since our main purpose has been to secure that as few as possible of our patients will be sitting at home mourning a loss of earning capacity which they well have been unnecessary, peering apprehensively at their skin, and excluded beyond all hope that it was only their work that has been responsible for their misfortunes, we do not insist that they keep their hands out of water or stay away from work. We believe that merely by taking a little trouble to discover, confirm or disprove a local cause for their skin disease one can go a long way towards curing the whole disability.

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STUDIES IN SEBACEOUS GLAND ACTIVITY BY MEANS OF OSMIC ACID FILTER PAPERS.

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IN 1954 Enderlin, Brun and Linder introduced a test of sebaceous gland activity which depended upon the reduction of osmic acid to osmium in the presence of unsaturated fatty acids. This technique has been widely used for many years in histological studies, and its adaptation to a macroscopic form of stain has provided a simple method of observation of sebaceous secretion. We became interested in tracing by this means the behaviour of the glands under various conditions. This report summarizes in brief our findings in a group of patients that we were able to follow over a period of time. Our study was designed to investigate (i) variations in sebaceous gland activity in several skin disorders; (ii) alterations in gland activity associated with the menstrual cycle and with pregnancy; (iii) alterations in gland activity produced by external applications of sulphur and of sulphur-containing organic compounds.

MATERIAL AND METHODS.

The skin of the forehead was used in all tests. The area was cleaned with water, ether and alcohol 20 minutes before the test was started. (Preliminary tests showed that 20 minutes were required for restoration of normal gland action after the surface had been cleaned.) The patient remained in a room of fairly constant temperature throughout.

Pieces of Whatman's No. 42 filter paper one square inch in size were applied to the area with a light even pressure for 5 minutes. They were then removed and suspended in a closed jar containing 25 c.c. of 2.5% osmic acid and its vapour. After exposure for 2 minutes at a distance of 5 in. from the liquid, the paper was removed and allowed to remain in the air for 24 hours. At the end of this time comparisons were made.

An attempt was made to control sweating by the use of banthine.

RESULTS AND DISCUSSION.

Considerable variation was noted in different skin disorders (Fig. 1). Normal skin showed discrete dots with little spreading. In acne vulgaris the dots were larger and tended to be confluent, with much spread. Seborrhoea showed a great increase in the number of dots, but little spreading. The skin of patients

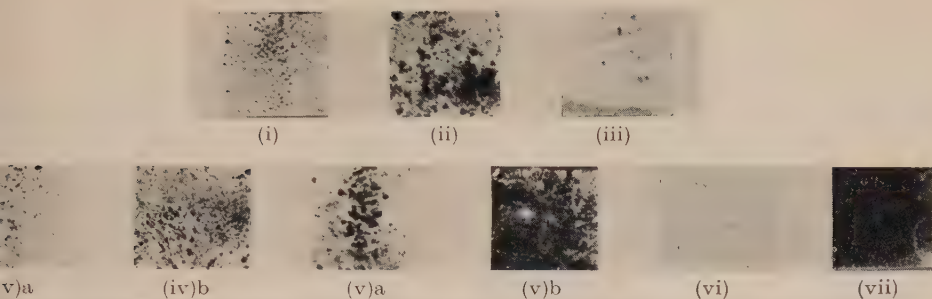


FIG. 1.—Patterns of the osmic acid test of sebaceous gland activity in various dermatoses : (i) Normal ; (ii) Darier's disease ; (iii) psoriasis ; (iv) seborrhoeic dermatitis, (a) mild, (b) severe ; (v) acne vulgaris, (a) mild, (b) severe ; (vi) atopic dermatitis ; (vii) emotional tension.

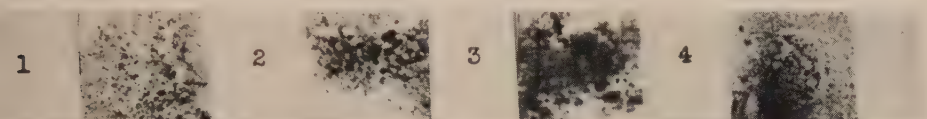


FIG. 2.—Variation in sebaceous gland activity during the menstrual cycle : (1) At ovulation ; (2) one week premenstrual ; (3) at onset of menses ; (4) one week post-menstrual.

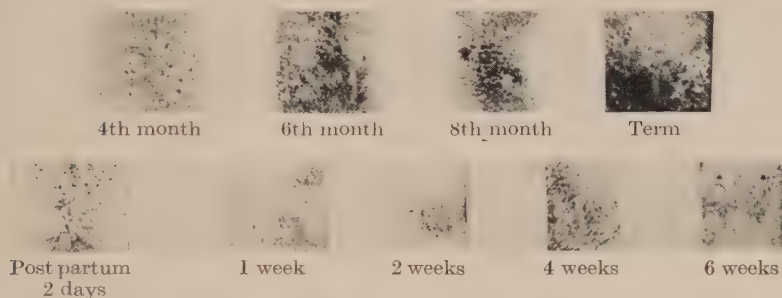


FIG. 3.—Variation in sebaceous gland activity during normal pregnancy.



FIG. 4.—Response of sebaceous gland activity to the application of SH groups. Of each pair, the left is before, the right after, treatment.



FIG. 5.—Response of seborrhoeic dermatitis to the topical application of sulphur. Tests at 4-day intervals.

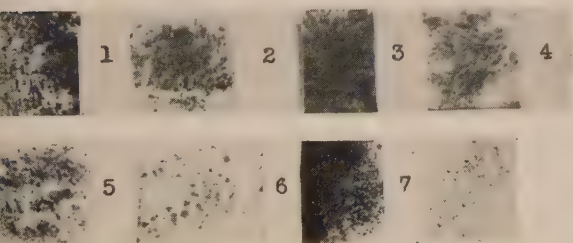


FIG. 6.—Response of acne vulgaris to the topical application of sulphur. Tests at 3-day intervals.

with atopic dermatitis had practically no demonstrable gland activity, and psoriatic patches had very little.

There was a remarkable effect if the patient was emotionally upset; this produced an increase in the number and size of the dots, and in their spreading tendency. This increase in blackening did not appear to be due to sweating, since it had been established in preliminary tests that sweat, as collected in the axilla, did not produce blackening or spotting of the filter paper, but only a diffuse pale grey discoloration.

The alterations seen during the menstrual cycle in 34 patients are illustrated in Fig. 2. There is an increased activity of individual glands, with a larger number of spots and more spreading, at the time of menses. At ovulation there is a reduction in these various changes.

During pregnancy there is a progressive increase in the number of dots and their spread and a sudden reduction in these two features shortly after confinement. About 4 weeks after parturition the gland activity has returned to normal.

It is interesting to observe that after application of a sulphhydryl-containing preparation a reduction in the number of spots occurred in normal skin, in seborrhoea, and also in acne vulgaris (18 patients) (Fig. 4). Treatment with sulphur-containing applications was carried out in 6 patients with seborrhoeic dermatitis with a reduction in the number of spots in about 2 weeks (Fig. 5). Over a similar period in 12 acne vulgaris patients so treated there was also a reduction in the number of glands showing secretion, and in the spreading tendency of the resulting spots (Fig. 6). Test sites 3 and 7 were taken on the same day as sites 2 and 6 respectively, but at a time when the patient was emotionally upset. In spite of therapy, there was a marked increase in the number and spreading of the dots, resulting either from a true stimulation of the sebaceous glands as assumed by some authors (Robin and Kepecs, 1953), or by an extraglandular mechanism such as increased sweating which might "wash out secretion" or by the stimulation of the contractile elements resulting in increased sebum delivery.

CONCLUSIONS.

This test appears to offer a relatively simple method of tracing sebaceous gland activity. Its reliability will have to be further observed in a larger number of cases, paying particular attention to the role of emotional factors.

We are indebted to Prof. J. Quastel for suggestions regarding sulphur-containing organic compounds, and to Messrs Merck & Co., N.J., for supply of such compounds.

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ROBIN, M. and KEPECS, J. G. (1953) *J. invest. Derm.*, **20**, 373. Discussion by S. Rothman.

RECURRENT IMPETIGO HERPETIFORMIS.

EMILE GAUMOND, M.D.

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Laval University, Quebec, Canada.

IMPETIGO herpetiformis, as described by Hebra, Kaposi, and Dubreuil, is a rare disease. It is characterized by specific cutaneous lesions and important general symptoms, the disease being a serious one and not infrequently fatal. Impetigo herpetiformis with recurrent attacks during a period of years seems even rarer. I believe that I have recently followed such a case of which the following is but a brief résumé of the salient features.

Impetigo herpetiformis is characterized clinically by a generalized eruption of superficial miliary pustules, which appear at the first onset at the periphery of an erythematous plaque. These pustules become confluent and evolve by exacerbations. The disease is observed especially during pregnancy but may also be found in non-pregnant women, and some cases have been observed in men.

The first pustules of impetigo appear at the inguinal folds, umbilicus, on the breasts and at the axillae. These pustules are always surrounded by an erythematous zone, and with the peripheral extension of this zone they become more numerous until entire regions are involved in the process.

The exacerbations overlap in time or are frankly recurrent. The general condition is greatly altered resembling septicaemia and in many cases death results in a few weeks. If there is cure, the attack is terminated by a pronounced desquamation characterized by large scales.

When this disease occurs during pregnancy, abortion or premature birth may occur: the child may be still-born or survive but a few months. The affection may recur during each subsequent pregnancy. Histologically, it is usual to find pustules filled with mucus and leucocytes. According to some authors eosinophils predominate.

To date, no mechanism of aetiology or pathogenesis has been demonstrated in an indisputable manner to explain the disorder. The infectious-septicaemic theory seems the most tenable but has not been conclusively proven. Treatment is unsatisfactory.

CASE REPORT.

On 16 November 1952 a woman 39 years of age was admitted to the Hôtel Dieu, Quebec. Temperature: 104° F., chills and burning sensations over the entire body.

She had been hospitalized in April 1950 for generalized erythrodermia. Apart from dermatological treatment cholecystectomy was performed because of attacks of sharp pain at Murphy's point preceeding every cutaneous eruption. The gall bladder showed mural atrophy with slight subserous sclerosis.

The first cutaneous lesions were seen during the eighth month of her first pregnancy in 1934, with general malaise and a disseminated eruption.

Identical attacks occurred during her second, third, fourth and fifth pregnancies, the last in 1940 with death of the child. She remained well during the intervals between her pregnancies. In 1940 hysterectomy was performed, and during the next ten years the patient experienced one or two attacks a year, each attack lasting about two months, presenting the identical symptomatology outlined above. Unfortunately, we did not see the patient during this period.

The present attack began on 13 November 1952. The onset was marked by chills, a severe sore throat and generalized pains. Thirty-six hours later the patient noticed widespread disseminated erythematous plaques accompanied by a burning sensation. She was admitted to hospital on 16 November.

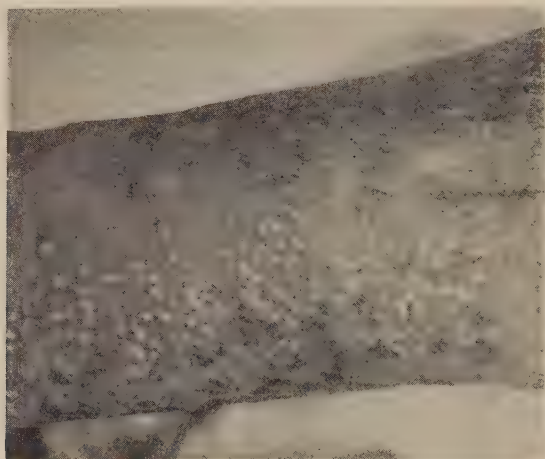


FIG. 1.—Forearm on 24 November 1952.

On 19 November the first pustules appeared in the inguinal region and on the inner sides of the thighs. During the following days the pustules disseminated. Two distinct exacerbations of pustular growth and dissemination occurred during her stay in hospital. The second was closely observed: First, we noted the rapid appearance of erythematous patches, upon and about which appear numerous easily-ruptured miliary pustules (Fig. 1). In small lesions the pustules assume a crown-like configuration, while those of the larger erythematous lesions are diffuse. Their content is creamy, but there is no exudation and after they have burst there remains but a thin layer of epithelial cells as evidence.

Fever, 104° F. on admission, settled to 100°–101° F. and remained at that level until 6 December—a period of three weeks. The eruption was accompanied by repeated chills and an intense burning feeling (in the patient's words, her body was "on fire").

Scattered pustules were observed over the entire body, including the conjunctival and buccal mucosa, but excluding the scalp, palms and soles. When the eruption had developed, the soreness of the throat disappeared. This second exacerbation lasted some seven days and was followed by diffuse erythematous patches and a fine

squamation. (This desquamation explains why, in 1950, at the time of the patient's first admission, a diagnosis of erythrodermia with exacerbations was made. Actually, the late stages of recurrent impetigo herpetiformis had been seen.)

vestigations.

Blood WR. (20.xi.52): Negative.

Blood count (17.xi.52): Hb, 11.9. RBC, 3,930,000. WBC, 15,600 (Segmented neutrophils, 53%; neutrophil bands, 10; eos., 2; lymphos., 10; monos., 11%). ESR (17.xi.52): (one hour) 43. (two hours) 74. (18.xii.52): (one hour) 43. (two hours) 68.

Bacteriological examination of pustules (22.xi.52).—Direct examination: Polymorphonuclear leucocytes with few lymphocytes and epithelial cells. Meat extract and agar: *Staphylococcus albus*.

Bacteriological examination of pharynx (25.xi.52).—Coagulated serum: Few pneumococci, many diphtheroids. Meat extract and agar: *B. megatherium*, *B. ocyaneus*.

Blood culture (29.xi.52): negative.

Bacteriological examination of tonsils (16.xii.52).—Meat extract and agar: *Staphylococcus aureus*.

Bacteriological examination of the nose (13.xii.52)—*Staphylococcus aureus*.

Bacteriological examination of the pharynx (5.ii.53) (Laval University Laboratories).

B. pyocyaneus not pathogenic to the guinea-pig (Dr. Hector Turcotte).

Non-Protein nitrogen, Blood (2.xii.53): 45.

Urine: Normal. Minute quantities of albumin noted upon administration of urolymin.

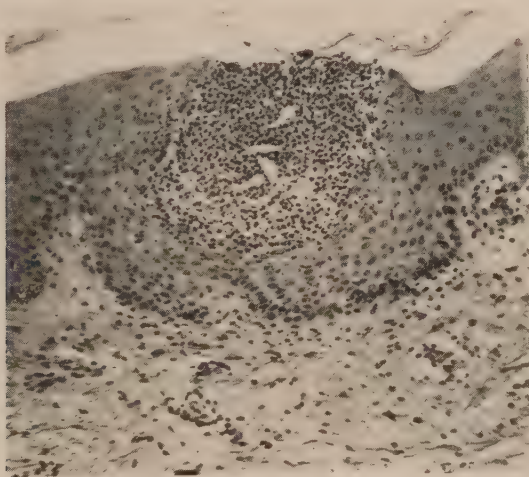


FIG. 2.— 280.

Histology (27.xi.52) (Dr. Carlton Auger).—The lesions reside mainly in the epidermis, which shows a slight acanthosis and isolated dense foci of polymorphonuclears (Fig. 2). These foci generally occupy the Malpighian layer and are surrounded by thin areas of spongiosis. They extend into the corneous layer. The superficial corium contains a sparse polymorphonuclear infiltrate. The large majority of these cells are neutrophils, with about 5% eosinophils.

On 13 December the patient underwent tonsillectomy recommended by Dr. P. Vinchard for chronic cryptic tonsillitis. It is to be hoped that this measure will

produce a remission similar to that produced in 1950, when following her cholecystectomy the patient was free of all disease manifestations for well over two years.

Post-operative tonsillar examination (19.xii.52) (Dr. J. L. Bonenfant).—Atrophic tonsils showing marked cryptic lymphocytic and plasma-cell exudate with several foci of Gram-positive bacteria at the surface.

Treatment.—Local: Pot. permanganate baths and talcum. Orally: Redoxon, aureomycin, adrenalin, chloromycetin, phenergan and pyribenzamine. By injection: Penicillin, and polymixin for a few days only.

None of the medication used, with the probable exception of polymixin, gave any evident result. Patient was given polymixin (a few doses only) to combat invasion of the pyocyanic bacilli in the pharynx. Again, it is to be remembered that the non-pathogenicity of this organism was demonstrated at the Laval Laboratory by Dr. Hector Turcotte.

On 21 December the patient was discharged, her skin free of all lesions.

The patient later wrote to us. She had had two recurrences, the first in January 1953, the other in April 1953, both mild. She then remained well up to the time of writing, October 1953.

DISCUSSION.

The only dermatosis with which there can be any similarity is the Dühring-Brocq polymorphous dermatitis, of which dermatitis herpetiformis is but a variety. Dühring-Brocq's disease is always characterized by the polymorphism of the eruption, with erythematous plaques, vesicles with a clear liquid, crusts and often pigmentation. Pruritus is severe and no general signs are present.

Histopathological examination in the present case showed that the lesion is pustular with superficial micro-abscesses. This never occurs in polymorphous dermatitis.

In conclusion, bearing in mind the characteristic clinical picture of the eruption, the general symptomatology and the histopathological findings, I believe that this patient truly presented recurrent impetigo herpetiformis. This was at least the twentieth recurrence.

Like others who have studied this question. I have no precise notions of the aetiology. The infectious theory seems to be the most rational, even though it was not possible to demonstrate the causal agent of the septicaemia. (The disease truly takes on a septicaemic character.) The auto-intoxication theory finds support during pregnancy, but the cases of impetigo herpetiformis occurring outside pregnancy are of a sufficient number to render this hypothesis untenable. There are those who prefer the endocrine theory, and Leclercq and Cournot, in France, have in fact treated with some success a patient with high doses of testosterone.

Could impetigo herpetiformis form a part of what the English call "pustular bacterids" or are we dealing with a viral infection? It seems certain that some day soon the question will see light and an adequate and effective therapy will be found.

I wish to thank Dr. H. Marcoux for the bacteriological examinations and Dr. C. Auger for the histopathological examinations.

NYLON AND LEUCODERMIA.

M. EL ZAWAHRY, M.D.(Cairo).

Assistant Professor of Dermatology, Kasr-el-Aini Faculty of Medicine, Cairo.

DURING the year 1955 I have observed four cases of leucoderma developing in patients at the same site. In 1954 I saw two similar cases which did not at the time attract my attention, but the more recent cases have brought them to mind.

Vitiligo is commonly met with in Egypt, and the incidence is increasing. The interesting feature in these four cases is not the vitiligo itself, which is similar to other cases, but its occurrence always at the same site, i.e., the distal part of the left forearm under the wrist watch strap (Fig. 1).



FIG. 1.

On careful inquiry, all these patients stated that they used a nylon strap to fasten the watch. Previously they had used ordinary rubber and nothing abnormal was noticed: when they changed to nylon the patients began to get a white patch or patches just at the site of the nylon band. The patch grows in size to coincide exactly with the nylon area, and the area opposite the watch itself remains free from leucoderma and with normal skin. When multiple patches developed they enlarged peripherally and coalesced with the neighbouring patches until all the nylon area was covered with the milky white leucodermic lesions.

One of the patients was a woman aged 42, who looked healthy in every way, with normally born children and no sign or manifestation of either endocrine or nervous disability. Just opposite to a nylon binder she developed a zone of

leucodermia exactly corresponding to a nylon watch-strap with normal skin at the site of the metal watch. She therefore wore the watch with the same strap on the right forearm, and to her great surprise a patch of leucodermia appeared at the nylon site on the right forearm also. At that stage she abandoned the nylon strap for ever and was satisfied with carrying the watch in her pocket to avoid further leucodermic patches of her hands.

Two patients, before the appearance of leucodermia, developed a sort of contact dermatitis, with itching, redness and oedema, due to nylon, and later, after the subsidence of the inflammation, leucodermia developed.

A further case, that of a man aged 25 years developed, in addition to the patch of leucodermia at the nylon area of the left wrist, two big patches of leucodermia on the fronts of both legs.

In all, then, six cases of leucodermia developing at the left wrist under nylon straps of watches of different metals, without affection of the skin under the watches, were met with during the years 1954 and 1955.

One of the patients was a woman and the rest were men between 20 and 30 years of age. One of the cases had leucodermia of both legs in addition but in the remainder only the distal part of left forearm was affected. Two cases developed contact dermatitis prior to the leucodermia and at the same site.

We can conclude that nylon caused the leucodermia in these cases. This raises several problems :

(i) Could nylon interfere with the local formation of melanin from tyrosine at any point of melanin metabolism ?

(ii) The contact dermatitis, which commonly results from wearing nylon can cause, in certain patients, a post-inflammatory depigmentation and leucodermia. This may have occurred in two of these cases, but the remaining four had the leucodermia without previous inflammation of any nature.

(iii) In susceptible patients who are ready to develop the disease and have already the aetiological basis for the leucodermia, nylon may provide only a precipitating factor.

(iv) Do these patients belong to the group of leucodermia developing after trauma, the traumatizing agent being nylon ?

(v) Could this observation be taken as a starting point in throwing light on the aetiology of leucodermia, or a guide to an efficient treatment for this disorder which still resists all the known methods of treatment ?

These problems remain unanswered.

CASE OF TRUE ALLERGY ESTABLISHED BY PATCH TESTING AND REPORTED BY SIR KENELME DIGBY IN 1645.

IDA MACALPINE AND RICHARD A. HUNTER

THE concept of allergy is often assumed to have started with von Pirquet, who coined the term in 1906. But the phenomenon of hypersensitivity to ingested food as well as to dermal and respiratory contact has been known to physicians for centuries. It is not so well known that the epicutaneous or patch test had also been practised centuries before its technique was described by Jadassohn in 1894. To-day, despite much scientific work, it is still open to discussion to what extent in a given case psychological factors enter into or even account for "allergic" eruptions, such as contact dermatitis.

It is therefore intriguing to find a seventeenth-century writer who was not only familiar with patch-testing but was also at pains to exclude psychological factors in the evaluation of the result. We refer to a book by Sir Kenelme Digby, entitled *Two Treatises: In the one of which, The Nature of Bodies; the other, The Nature of Man's Soule, is Looked Into* . . . (London, 1645). The passage occurs on pp. 415-416 under the marginal heading "Why divers men hate some certaine meats, and particularly cheese", and follows on discussions "Of Antipathies" and "Of Sympathies".

"Farre more easie is it, to discover the secret cause of many antipathies or sympathies, which are seen in children, and endure with them the greatest part, if not the whole terme of their life, without any apparent ground for them: as some doe not love cheese, others garlike, others ducks, others divers other kindes of meate,* which their parents loved well: and yet in token that this aversion is naturall unto them, and not arising from some dislike accidentally taken and imprinted in their fantasie, they will be much harmed if they chance to eate any such meate; though by the much disguising it, they neither know, nor so much as suspect they have done so. The story of the Lady *Hennage* (who was of the bed-chamber to the late Queene *Elizabeth*) that had her cheek blistered by laying a rose upon it whiles shee was asleepe, to try if her antipathy against that flower, were so great as she used to pretend, is famous in the Court of England".

We could perhaps to-day settle our differences of opinion on Digby's terms and agree that in some "this aversion is naturall unto them", and in others

* "Meate" is used for any solid food.

“ arising from some dislike accidentally taken and imprinted in their fantasie ”. But the psychiatrist will insist with Digby that strict precautions must be applied to exclude from patch-testing the possibility of suggestion— “ to try . . . her antipathy ” Lady Hennage had a rose placed on her cheek “ whiles shee was asleepe ”.

Unfortunately lack of space has prevented our giving Digby's next case, which concerns “ A Kinsman of mine, whiles he was a child, had like to have died of drought, before his nurse came to understand, that he had an antipathy against Beer or Wine ”.

ROYAL SOCIETY OF MEDICINE

SECTION OF DERMATOLOGY.

President, DR. REGINALD T. BRAIN.

17 March 1955.

Dermatitis repens.—Dr. H. T. H. WILSON.

Irs. D. M—, widow, aged 63.

History.—The present eruption started two years ago as a paronychia of the right thumb. This persisted for eight weeks, after which the tip of the thumb and around nail became erythematous. Since then the red area has steadily extended till half the thumb is affected. There is considerable pain in the thumb and some itching at the base but not in the affected area.

Past history.—No previous illnesses.

Family history.—Father alive and well, aged 84. Mother died aged 58, carcinoma. No sisters, 1 brother, alive and well. She has 3 children alive and well.

On examination.—The affected skin is red, slightly shiny and has an arcuate sero-sulphurulent phlyctenular margin. On the active area several small blisters that form a circinate pattern. The nail was removed in October 1953, and a dystrophic remnant has regrown.



FIG. 1.

Investigations :

l.ix.53—Pus smear : Occasional pus cells and epithelial cells. No organisms seen. Culture : No growth in 48 hours.

l.x.53—Nail : No fungi seen. Culture : No fungi grown.

l.xi.53—Scales : No fungi seen. Culture : No fungi grown.

l.iii.54—Scales : Culture : Mixed growth of micrococci and *Staph. albus* (coagulase-negative).

- 18.iii.54—Film : No fungus seen. Culture : *Staph. albus* and micrococci only.
 9.iv.54 : No fungus isolated on culture.
 7.iii.55—Smear : No organisms found on aerobic or anaerobic culture.

Treatment.

Local : Baths of 10% potassium permanganate ; eusol ; pigmentum Castellani ; Ung. hyd. ammon. dil. ; 10% balsam of Peru ; Vioform cream ; gentian violet ; ung. aureomycin 2% ; Ung. Graneoidin ; ung. erythromycin ; ung. hydrocortisone ; ung. streptomycin 1%.

General :—February, 1954 : Sulphamezathine 4 g. daily for 5 days.

September, 1954 : Sulphapyridine 1.5 g. daily for 14 days.

October, 1954 : Sulphapyridine 3 g. daily for 5 days. Sulphapyridine 1.5 g. daily for 9 days.

November, 1954 : Aureomycin 1 g. daily for 7 days.

Progress.—Since its onset the lesion has very slowly extended and has been entirely unaffected by any sort of treatment.

Crocker, in his description of dermatitis repens, referred to an arcuate seropurulent phlyctenular margin which is present in this case. It appears intermittently both at the edge and centre of the lesion but is occasionally obscured by crusting. No biopsy was done but the usual histological finding is a subcorneal blister. The dystrophic nail was removed because it was painful and has never properly regrown, a common feature of this condition. Chronic cases of infectious eczematoid dermatitis involving this site are often labelled dermatitis repens. They do not, however, show the well-defined edge, and although sometimes rebellious to treatment, they mostly respond fairly well to antibiotics.

There does not appear to be any essential difference between dermatitis repens and acrodermatitis continua of Hallopeau. Hallopeau and others believed the condition to be an infective one. In the present case repeated bacterial examinations have failed to reveal a microbic cause, and there has been no response to any of the available antibiotics or to two courses of oral sulphapyridine.

Dr. R. M. B. MACKENNA : Does any member know what happens if one amputates these digits ? I remember a similar case some time ago which was shown by Dr. Rupert Hallam at Sheffield to the North of England Dermatological Society ; the exhibitor said that he had watched the case for a long time and thought that he should have amputated the original digit.

Dr. F. F. HELLIER : I also remember that case in which other fingers were affected later. It is a question whether this one will do the same ; if the disease is purely a local one, amputation might help ; but if it is a condition like psoriasis amputation would not do any good.

Has any member tried Dapsone ? I have a case of persistent pustular pompholyx or psoriasis similar to this in whom the giving of Dapsone had a remarkable effect. He also had at one stage vesicular lesions on the body which responded dramatically and the hands are nearly clear for the first time for years.

Dr. BRIAN RUSSELL : Bloom, R. E., and Lorincz, A. L. (1954, *Arch. Derm. Syph., Chicago*, **70**, 819), have reported success with 10% Peruvian balsam in petrolatum in this malady.

THE PRESIDENT : It is unusual for these cases to respond to antibiotics. I had a good result with D.O.C.A. and ascorbic acid in an old lady whose fingers were like this.

Dr. WILSON : With regard to an infective aetiology she has been examined by two separate laboratories, the micrococci we found only on one occasion.

Dr. F. RAY BETTLEY : Has an infusion of tobacco been tried on this condition ? Two or three years ago there was a report of cases of pustular bacteride or pustular psoriasis improving when they were treated with compresses or baths in a cold infusion of ordinary smokers' tobacco.

Dr. ALICE CARLETON : I have tried it in several cases in the form of $\frac{1}{2}$ oz. of shag in a tumbler of hot water. It was at least more successful than other forms of treatment, and sometimes completely curative. One patient who was cured told her brother. He was a merchant seaman and said it was an old naval practice to chew a quid of tobacco and apply the juice to surface injuries or infections.

Dr. JOHN MORGAN : I tried an infusion of tobacco in a case of psoriasis of the feet and the patient had to be admitted with severe sensitization dermatitis within a few days.

tuberculides.—Dr. R. G. HOWELL.

H—, a Cypriot boy aged 11 years.

Previous history.—In August 1953 he was admitted to hospital with a history of illness and sweating for three weeks. He was acutely ill. Temperature 103° F. There was a generalized papular erythematous rash. Chest skiagram showed acute primary tuberculosis. Choroidal tubercles were seen. The liver edge was palpable 2 in. below the costal margin. The spleen was not palpable.

ESR. : 14 mm./ 1 hr. (Westergren).

Tuberc. : 1/100 positive, 1/1000 negative.

WBC. : 5000.

X-ray showed no abnormality.

He was treated with Streptomycin, P.A.S. and isoniazide, and he made a steady recovery.

In November 1953 the chest skiagram was normal and he was in good health.

History of present illness.—In November 1954 he developed an ulcer on the right leg below the knee and an indurated deep nodule, which later ulcerated, above the knee. At the same time a patchy rash appeared on the trunk.

Physical examination.—General health very good. There was a follicular lichenoid eruption on the trunk, patchy in distribution. On the right leg there was a blue-red indurated ulcer below the knee. It was 1½ in. in diameter with an undermined edge and a thick discharged sero-pus. There was a similar but smaller ulcer above the right knee.

Investigations:—ESR. : 11 mm./1 hr. (Westgren).

Chest X-ray : N.A.D.

Tuberc. : 1/10,000 positive.

Culture from ulcers : Failed to grow *Myc. tuberculosis*

Biopsy of ulcer above right knee : A chronic inflammatory ulcerated lesion with a pyogenic inflammatory reaction near the surface, and in the deep part tubercle formation without caseation. No acid-fast bacilli seen.

Biopsy of lichenoid rash on trunk : The epidermis shows hyperkeratosis and some parakeratosis. In the upper dermis is an infiltrate of lymphocytes and histiocytes, mainly around vessels and appendages. There are one or two doubtful foci of necrosis with histiocytes and endothelial cells, but no giant cells. No acid-fast bacilli seen.

Comment.—Ulcers of the "tuberculous gumma" type due to embolic spread of tubercle bacilli into the skin are not uncommon. Allergic lichenoid tuberculide reactions have become very unusual in recent years. The increased sensitivity to tuberculin shown by this patient is of interest.

It is possible that unusual tuberculide reactions may become more common as the lives of patients with widespread tuberculous infections are prolonged by chemotherapy.

Postscript.—Treatment with iso-nicotinic acid hydrazide 300 mg. daily and P.A.S. 1 g. daily has resulted in slow healing of the ulcers, but no change in the lichenoid eruption.

The following cases have been published in *Proc. R. Soc. Med.*, 48, 769.

Caposi's Multiple Pigmented Haemorrhagic Sarcoma, almost healed.—Dr. MAURICE GARRETT (for Dr. W. N. GOLDSMITH).

Lymphoma with ? Poikiloderma.—Dr. MAURICE GARRETT (for Dr. W. N. GOLDSMITH).

Myxoid Disease.—Dr. E. J. MOYNAHAN.

The following cases also were shown :

1) **Congenital Morbus Cordis and Lupus Erythematosus in a Boy Aged 6**

Following Treatment with Antibiotics and Controlled by Chloroquine;
(2) Pseudoxanthoma Elasticum and Lichen Planus Linearis.—Dr. BRIAN F. RUSSELL.

Pseudoxanthoma Elasticum.—Dr. W. FRAIN-BELL (for Dr. J. E. M. WIGLEY).

(1) Eosinophilic Granuloma of Face; (2) Epidermolysis Bullosa; (3) Peri-ungual Fibromata in a Case of Adenoma Sebaceum.—Dr. A. AITKEN ROSS.

(1) Prurigo Nodularis; (2) Monilethrix.—Dr. E. J. MOYNAHAN.

Orf.—Dr. N. A. THORNE and Dr. P. J. FEENY.

A film entitled "Clinical Signs of Framboesia Tropica" was shown by Dr. Ivan Polunin.

BOOK REVIEW

A CLINICOPATHOLOGIC TREATISE*

THIS is a book of 1048 pages, and approximately one third of these are devoted to black and white illustrations of clinical cases and histological sections. The text dealing with the normal skin and pigmented naevi and malignant melanomas is good, but the remainder is neither as comprehensive nor as analytical as might have been expected. Many of the clinical descriptions of diseases are inadequate, and there might have been more attempt made to correlate the histopathology with the clinical picture.

There are 2200 references which are arranged according to the diseases with which they are concerned. Only a few of these papers are actually quoted in the text, and the subjects expressed in them discussed. For the rest, the references are a somewhat haphazard list which includes many quite unimportant publications. The names of the principal authors who have made outstanding contributions to the subject receive no mention.

The illustrations are in black and white and in many cases are far below the standard which might be expected from this medium. As regards the clinical photography many are flat, and are lacking in detail and sharpness; others show a badly positioned subject; not a few are out of focus. The microphotography is on a similar level, and in many cases, particularly in the inflammations and "collagen" diseases, the fields shown are unrecognisable.

The work can be described as somewhat superficial in character. It does not give a particularly clear exposition of the subject, and the considerable weight of the volume does not match the value of its contents.

G. H. P.

The Skin : A clinicopathologic treatise. ARTHUR C. ALLEN. (1954) London : Kimpton. Pp. 1048. Illus. 495. Price £9 7s. 6d.

CURRENT LITERATURE.

HYPOGAMMAGLOBULINAEMIA IN PYODERMA GANGRENOsum. P. V. MARCUSSEN (1955) *J. invest. Derm.*, **24**, 275.

Proteins are lost by exudation from ulcerated surfaces in the same proportions in which they are present in serum and it is because albumen is the more slowly replaced that globulins predominate in a protein-impoveryished plasma.

The hypogammaglobulinaemia in this case persisted for at least several weeks after healing, but it is thought to have been a primary factor. Although the intravenous injection of 50 c.c. γ globulin for 3 or 4 days was followed on two separate occasions by acceleration of repair, it clearly did not inhibit spread of the ulceration.

The graph shows a cumulative measurement of ulceration and repair from which it would appear that on the first occasion ulceration came to a standstill for a few days and repair began to go ahead; but after the second course of injections the gap between ulceration and repair continued to widen. (Is it really so difficult to measure an ulcer accurately—e.g. with a piece of squared cellophane—without intolerable discomfort to the patient?) The author considers pyoderma gangrenosum to be an infection by certain organisms insusceptible to any of the numerous antibiotics he mentions as having been used in vain. He explains the circumstance that this supposedly antibody-rich material encouraged epithelialization rather than combatted the infection on the basis of the relative permeabilities of the tissues in which its healing influence was sought.

J. H. T. D.

CYTOLOGICAL AND CYTOCHEMICAL CHANGES IN THE SKIN OF HAIRLESS MICE EXPOSED TO HIGH INTENSITY AIRBORNE SOUND. A. ANTHONY and P. A. DANNER. (1955) *J. invest. Derm.*, **24**, 435.

The specially designed mouse-container, of brass lined with sponge rubber, has a window to allow the product of a loud speaker to impinge on an isolated part of the mouse's belly. Hairless mice were used not only because sound is absorbed and therefore heat readily generated in fur but because their skins have a varied histological scenery.

Subthermal sound applied daily for 3 months failed to produce any observable effect on either structure or function. Where sufficient heat was generated in the skin the results were indistinguishable from those of thermal burns.

J. H. T. D.

EXPERIMENTAL SENSITIZATION OF GUINEA-PIGS TO 1-HYDRAZINOPHTHALAZINE : WITH A DISCUSSION ON THE USE OF GUINEA-PIGS FOR THE FORECAST OF CLINICAL SENSITIZATIONS. R. L. MAYER, P. C. EISMAN and D. JACONIA. (1955) *J. invest. Derm.*, **24**, 281.

Phenylhydrazine hydrochloride is well known as a skin hazard of the biochemical laboratory. The NH-NH_2 group occurs also not only in Isoniazid but in several drugs now being used in the treatment of hypertension.

The likelihood of skin allergy to drugs ingested is recognized to be small, but the main practical value of this study is the further support it gives to the idea that ingestion of a substance may protect the skin from sensitization to it.

There should certainly be a market for a mixed antibiotic tablet to be taken before visiting the doctor.

J. H. T. D.

RONTGEN IRRADIATION AT A DISTANCE USING THE SOFT RADIATION FROM BERYLLIUM WINDOW TUBES IN TREATING CASES OF GENERALIZED DERMATOSES. C. G. SCHIRREN. (1955) *J. invest. Derm.*, **24**, 463.

(Wherever superficial therapy has fallen into the hands of the radiologists it will usually be found that "unfiltered" means at least half a millimetre of aluminium.)

Now at last we are getting back to the notion of treating the skin and not the subcutaneous tissues! Using the author's technique we can give 50r. to the whole surface of the body in a few minutes, with 50% of the dose absorbed in the skin. By reducing the F.S.D. below 2 m. we can significantly raise the proportion absorbed in the skin, but we would then have to give more than two exposures to cover the whole surface.

What is more, the treatment appears to be intrinsically valuable as proved by the absence of any effect in the shadow of an excessively comprehensive "fig leaf" of lead. Moreover the author reports that he has treated enough patients on one side only to know that the therapeutic effect is not mysteriously transmitted to untreated areas as is sometimes claimed by those unwilling to believe in the disappointing testimony of simultaneous paired comparison.

J. H. T. D.

SYSTEMIC MONILIASIS TREATED WITH MYCOSTATIN. R. C. V. ROBINSON. (1955) *J. invest. Derm.*, 24, 375.

Mycostatin (*streptomyces noursei*) has been successfully used in the local treatment of vaginal moniliasis, but has not had much success in ringworm infection of the skin and is said not to be absorbed through the gastrointestinal tract. But here is a case in which the antibiotic prescribed by the mouth primarily in the hope of relieving the oral infection brought about a cure including the skin. The only part needing any local treatment was, after all, the vagina!

J. H. T. D.

PEMPHIGUS VULGARIS TREATED WITH METACORTANDRACIN. C. T. NELSON. (1955) *J. invest. Derm.*, 24, 377.

Metacortandracin is said to be four times as strong as cortisone, but this patient (on whom 1000 mg. of cortisone a day plus 25 mg. of ACTH intravenously had been expended without avail) took 250 mg. a day, without the departure from their normal ranges of serum electrolytes or proteins, blood urea and blood sugar, and left hospital nearly well.

J. H. T. D.

AN ETIOLOGIC APPRAISAL OF HAND DERMATITIS. I. THE ROLE OF SOAP AND DETERGENTS AS SENSITIZERS. J. J. JAMBOR and R. R. SUSKIND. (1955) *J. invest. Derm.*, 24, 379. **II. THE ROLE OF SOAPS AND DETERGENTS AS PRIMARY IRRITANTS.** J. J. JAMBOR. (1955) *J. invest. Derm.*, 24, 387.

The clinical material employed in this important piece of research consisted of patients with symmetrical eczematoid dermatitis of the hands who had blamed either soap or detergents as the cause of it. Some was hospital patients, and others private patients referred to the hospital for the purpose of this particular investigation. Whether they were told that the investigation was in the interests of science, or for their own individual benefit is not stated, but it is recorded here that in several of the cases improvement appeared to result from the mere fact that a determined effort was being made to find out the true cause of their trouble.

The first experiment was concerned with sensitization and the answer emerged that not one of the 57 cases was demonstrably hypersensitive to soap or detergents. The second experiment dealt with primary irritation; and symmetrical paired comparison was used to show that it makes little or no difference to hands affected with dermatitis whether they are immersed for half an hour in plain water at 105° F. or in an 0.5% solution of any of a selection of soaps and detergents.

The subjects were in-patients and the skin was examined visually, with a dissecting microscope, an "Erythrometer" (comparative absorption of green and red light) and a calomel electrode pH meter; and they were photographed in colour. The assay was made on a scoring system with each reading checked independently by another observer. In 6 cases out of 22 the soapy hand looked a little worse, in 5 the control, and in 11 there was no difference.

Now the basis of selection in both series was the patients' own diagnosis (which in the U.K. for economic and political reasons is the one usually adopted by the patient's own doctor and often by the one appointed by the Ministry of National Insurance). But the author in making his own diagnoses has, of course, had the advantage of the information provided by his tests. Of his 57 cases in the sensitivity programme 17 had a history of clinical manifestations of skin disease other than contact dermatitis, but in 5 of these the author considered that external irritants had played a significant part. In 17 cases an external irritant other than soap was deemed to have been the primary aetiological factor. Of these one patient with discoid eczema, previously recalcitrant, quickly responded to fungicides after *Candida albicans* had been isolated from her lesions; another, a 26-year-old mother, had rubbed lanolin into her palms in order to counteract the expected effects of infant laundry and developed "fissuring and hyperkeratosis of discrete areas of the palms" and "experimental usage of the ointment following healing resulted in vesication of her skin." Fourteen cases were thought not to be any kind of contact dermatitis.

Of the 22 cases exposed to the primary irritant test 8 were cases of constitutional or endogenous skin disease or of specific infection and 7 cases in which the primary aetiological factor was deemed to be allergy to an external irritant. In the remainder the dermatitis had complicated an injury or the treatment of some other dermatosis. There were unfortunately no examples in this rather small series either of plain discoid eczema or of acceptable effects of long and continued immersion in alkali.

The author has planned a further experiment to exclude the possibility that manipulation of objects in the soapy water might make all the difference demanded by popular belief.

J. H. T. D.

TREATMENT OF SKIN DISORDERS WITH ACTH AND CORTISONE. THE MEDICAL RESEARCH COUNCIL. (1954) *Brit. med. J.*, ii, 1307.

Exfoliative dermatitis, eczema and Besnier's prurigo were treated with corticotrophin and cortisone. In exfoliative dermatitis other than that following psoriasis the disease is controlled and often cured. In eczema, except in the seborrhoeic type, there is a dramatic response, but a relapse may follow suspension of treatment. In Besnier's prurigo relief of symptoms is equally dramatic while the patient is under treatment.

Reaction to patch tests that had previously been positive were prevented or reduced. Few toxic reactions were serious.

B. A. T.

PRURITUS IN MELANCHOLIA. KENNETH C. S. EDWARDS. (1954) *Brit. med. J.*, ii, 1527.

Pruritus may be secondary to melancholia and can rightly be regarded as a symptom of it. The six cases under review benefited from E.C.T. with the exception of one where leucotomy was required.

B. A. T.

SEZARY'S SYNDROME. W. E. ALDERSON, GEORGE I. BARROW and ROBERT L. TURNER. (1955) *Brit. med. J.*, i, 256.

The five cases previously reported are reviewed and two further ones described. The syndrome is thought to be a local reticulosis intermediate between benign reaction and frank malignancy. The chronicity is possibly due partly to its "pre-malignant" character and partly to the organs affected, the skin and superficial lymph nodes.

B. A. T.

CHLOROQUINE SULPHATE IN TREATMENT OF CHRONIC DISCOID LUPUS ERYTHEMATOSUS. H. J. LEWIS. (1955) *Brit. med. J.*, i, 329.

Eighteen cases of L.E. were treated with chloroquine sulphate. Although not a complete cure it is as efficient a form of palliative therapy as any previously used.

B. A. T.

HYDROCORTISONE OINTMENT IN THE ECZEMAS. RONALD CHURCH. (1955) *Brit. med. J.*, i, 517.

One hundred and five cases of eczema were treated with hydrocortisone ointment. Improvement occurred in 76%. Response was poorer in lichenified eczemas. Infection was spread by the ointment unless controlled before its use. Relapse was liable to occur on stopping treatment although this could be prevented by gradually withdrawing it.

B. A. T.

ACQUIRED ICHTHYOSIS IN HODGKIN'S DISEASE. I. B. SNEDDON. (1955) *Brit. med. J.*, i, 763.

Four cases of an acquired ichthyosis associated with Hodgkin's disease and reticulosarcoma are described. Cases of acquired ichthyosis should be investigated for an underlying reticulosis.

B. A. T.

ERYTHRODERMIA WITH LIPOMELANIC RETICULUM-CELL HYPERPLASIA OF LYMPH NODES. R. C. NAIRN and T. E. ANDERSON. (1955) *Brit. med. J.*, i, 820.

Lymphadenopathy in association with different clinical types of pruritic skin was studied clinically and pathologically during a four-year period. Seven had no exfoliation and showed only non-specific changes in the lymph nodes. The other 13 cases had an exfoliative phase and showed characteristic proliferation of the reticulum cells. The term "dermatopathic lymphadenitis"

is used to describe this change.

Thirteen cases in a population of 500,000 gives an indication of the incidence of the syndrome.
B. A. T.

MALIGNANT GRANULOMA OF THE NOSE. MAXWELL ELLIS. (1955) *Brit. med. J.*, i, 1251.

A case of malignant granuloma of the nose has been cured by a very small dose of deep x-ray therapy. This is the first genuine example recorded in which the patient has not died of the disease.
B. A. T.

KERATOACANTHOMA. N. PUENTE DUANY. (1955) *Arch. cubanos Cancerologia*, 14, 24.

The author reviews the literature and describes the lesions of 19 patients, 7 of whom had two or more lesions. As the tumours had many resemblances to squamous cell epithelioma they were all treated by surgery, diathermy, radium or x-rays. There are two different histological pictures of the lesion; one where pseudo tumour cells attached to the epidermis show their keratinized central portion exteriorized and bulging to the surface, the second where the pseudo tumour cells form variable-sized masses, keratinized in the centre and surrounded by dermal connective tissue; the appearance sometimes being cyst-like.

What appears to be a keratoacanthoma clinically is not always so histologically, as 5 lesions were adenoacanthomas, 1 a sweat gland basal cell epithelioma and another a sweat gland epithelioma with squamous cell differentiation.
G. W. B.

PSEUDOEPITHELIOMATOUS HYPERPLASIAS. D. GRINSPAN and J. ABULAFIA. (1955) *Arch. argent. Derm.*, 5, 27.

The authors report 20 cases of their own and compare them clinically and histologically with prickle cell epitheliomas. They discuss the differential diagnosis and terminology and review the literature.
G. W. B.

MALIGNANT TUMOURS ARISING FROM THE AXILLARY SWEAT GLANDS. N. PUENTE DUANY. (1955) *Arch. cubanos Cancerologia*, 14, 176.

Carcinoma occasionally originates in the axillary apocrine glands. The overlying skin may be normal or have patches of Paget's disease. Histological diagnosis may be difficult because of the resemblance of the cells in the early stage to those of the ducts of the glands, and in the later stage to those of mammary duct carcinoma. The author describes six examples and reviews the literature.
G. W. B.

PSEUDO MELANOTIC HAEMOSIDERIN HISTIOCYTOMA OF DISS. D. ARGÜELLES-CASALS. (1955) *Arch. cubanos Cancerologia*, 14, 95.

The author reports an example of this rare condition which clinically looked like a malignant melanoma and was identified on histological examination.
G. W. B.

THE IMPORTANCE OF PYRUVIC ACID IN THE PATHOGENESIS OF DERMATOMYOSITIS.

DAGOBERTO O. PIERINI and ELSA S. BRAEGGER. (1955) *Arch. argent. Derm.*, 5, 65.

Following up the papers of Midana and Leone on the treatment of this disease with cacarboxylase (50 mg. intravenously, daily) the authors treated 5 patients in whom an improvement in muscular function was associated with a diminution of the high amount of pyruvic acid.
G. W. B.

PERIPHERAL NEURITIS ASSOCIATED WITH A PULMONARY LESION IN A PATIENT WITH SYPHILIS. G. H. KNIGHT and W. FOWLER. (1955) *Brit. J. vener. Dis.*, 31, 175.

The authors describe a male, aged 56, in whom peripheral neuritis accompanied a pulmonary lesion presumed to be of syphilitic origin. The present interest in the association of peripheral neuritis with bronchial carcinoma prompted the reporting of the case.
W. G. A.

LYMPHOGRANULOMA VENEREUM (LYMPHOGRANULOMA INGUINALE). T. LYALL. (1955) *Brit. J. vener. Dis.*, 31, 179.

A case of lymphogranuloma venereum in which the herpetiform primary lesion was probably observed is described and illustrated. So far as the author can discover British medical literature

has only produced one previous article in which the primary sore of lymphogranuloma venereum has been illustrated (Hanschell, 1938).
W. G. A.

ASYMPTOMATIC NEUROSYPHILIS IN HONG KONG. G. M. THOMSON. (1955) *Brit. J. vener. Dis.*, **31**, 184.

The selection of the cases, the tests used, and the results of an examination of the cerebrospinal fluid in 1821 cases of latent syphilis are briefly described. The incidence of asymptomatic neurosyphilis was 12.8% in the 1570 males, 6.0% in the 251 females, and 11.91% for the total group of 1821 patients.
W. G. A.

OCCUPATIONAL DERMATOSES. (1955) *Bull. Derm. Syph., Paris*, **82**, No. 2.

This number contains a full account of the symposium on occupational dermatoses, held at Lille on 10 and 11 June. Only those who attended the Conference can understand how so much material could be crowded into two days, for the volume is really a treatise on industrial dermatology. There are pages of statistics on the incidence of dermatoses in all parts of France and it is interesting to note the great predominance of cement as an exogenous irritant. Dermatitis due to primary irritants (*dermatoses orthoergiques*), parasites, radiant energy, infections and sensitization, as well as cancer, are discussed and a wide variety of industries treated individually. The questionnaire, to be filled up in suspected cases of dermatitis and devised by Huriez, the Convener of the Conference, is a formidable and informative document. Diagnosis, patch tests and prevention are fully considered. The account of medico-legal difficulties in France reflects favourably on the British system, and there is a final section laying out the alteration in the law that dermatologists would like to see enacted. The volume should be kept as a reference book of industrial dermatology.
F. F. H.

A CASE OF INCONTINENTIA PIGMENTI OF THE "MUD SPLASH" TYPE. A. BAZEX and A. DUPRE. (1955) *Ann. Derm. Syph., Paris*, **82**, 361.

A girl aged 10 showed very abundant pigmented spots which followed three months after a bullous eruption at the age of 7 months. The pigmentation had gradually regressed on the exposed areas and improved on the arms and thighs following exposure to U.V.R. Histological sections were noteworthy for the constant and intense hyperpigmentation of the basal layer and the intra- and extra-cellular distribution of melanin in the dermis.
F. F. H.

BLASTOMYCOSSES. JORGE LOBO. (1955) *Ann. Derm. Syph., Paris*, **82**, 376.

This title is inexact though hallowed by usage. The author limits the lesion to the following conditions and briefly describes their history, clinical appearance and aetiology: (1) Busse-Buschke disease due to *Torulopsis neoformans*. (2) Gilchrist's disease due to *Blastomyces dermatitidis*. (3) Posadas Rixford disease due to *Coccidioides immitis*. (4) Lutz-Splendore-Almeida disease due to *Paracoccidioides brasiliensis*. (5) Jorge Lobo disease, described by the author in 1931 and caused by *Glenosporella loboï*.
F. F. H.

A CASE OF RHINOSCLEROMA. R. HISSARD, J. JACQUET and L. MONCOURIER. (1955) *Ann. Derm. Syph., Paris*, **82**, 400.

This occurred in a woman from Normandy and had existed for two years before it was recognized. The condition resisted streptomycin, but was cured by hetero-vaccine and radiotherapy.
F. F. H.

HISTORY AND DIAGNOSIS OF THE DERMATOPHYTES. L. GRIGORAKI. (1955) *Ann. Derm. Syph., Paris*, **82**, 388.

The author surveys his own work and classification based chiefly on examination of old cultures which allow a better study of the spores.
F. F. H.